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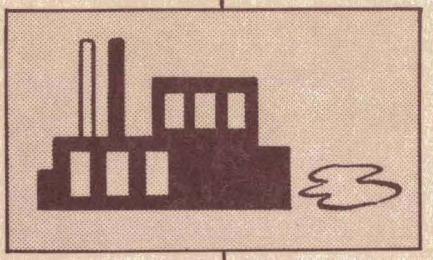
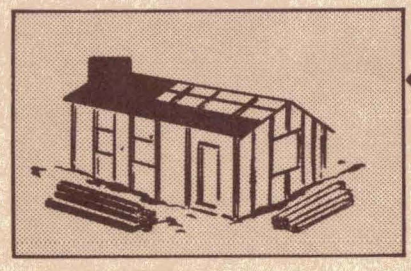
by CON H SCHALLAU





LAKE STATES FOREST EXPERIMENT STATION
FOREST SERVICE—U.S. DEPARTMENT of AGRICULTURE

A Rationale For Future Small Woodland Research In The Lake States[1]

by
Con H Schallau

"There is a certain relief in change, even though it be from bad to worse; as I have found in travelling in a stagecoach, that it is often a comfort to shift one's position and be bruised in a new place."

Washington Irving
Tales of a Traveller

Small private forest ownerships have attracted considerable attention during the post-war years. Two nationwide studies[2] [3] disclosed, among other factors, that owners of less than 5,000 acres of forest land accounted for a major share of the country's forest land but were doing little to increase the productivity of their timber holdings.

Actually, recognition of the important role of the "small ownerships" predates World War II. Establishment of several public assistance programs (e.g., forestry extension and farm forestry assistance programs) attest to this. But action programs have received their greatest emphasis during the last 18 years. So also has ownership research.

Twenty years ago there was a dearth of research on forest ownership in the Lake States — the entire Nation for that matter. Since then we've done a lot to fill this void. Numerous studies dealing with small forest ownership in the Lake States region not only have provided a considerable amount of descriptive information about the owner but, just as important, they have suggested needed areas of research.

[1] *Adapted from a paper presented at a U.S. Forest Service conference on research relating to small ownerships, held in Washington, D. C., Nov. 17-19, 1963. The author is a Forest Economist at the Lake States Forest Experiment Station. The Station is maintained at St. Paul, Minn., by the Forest Service, U.S. Department of Agriculture, in cooperation with the University of Minnesota.*

[2] *U.S. Forest Service. Forests and national prosperity, a reappraisal of the forest situation in the United States. U.S. Dept. Agr. Misc. Pub. 668, 99 pp., 1948.*

[3] *U.S. Forest Service. Timber resources for America's future. U.S. Dept. Agr. Forest Resource Rpt. 14, 704 pp., 1958.*

At the Lake States Forest Experiment Station we've reached a turning point and are now ready to "shift our position" with respect to ownership research. For one thing, past results have provided a framework for more intensive research on small woodland problems. But in addition, the overall timber supply picture has changed in recent years.

During the past decade the volume of timber growing stock in the Lake States increased by 27 percent. During the same period the average annual cut from growing stock dropped by 13 percent. There are dangers in generalizing—this cut and inventory relationship does not hold for all species, products, and age classes, — but until we have supply response information to the contrary it would seem that in the Lake States market-demand problems are more serious than supply problems. In short, ownership researchers would do well not to rely upon the timber famine theme as a basis for their work. The question arises then, "Why should we do more small ownership research?"

THE GOAL OF FUTURE OWNERSHIP RESEARCH

The first area I'd like to explore is the notion of owner welfare. I'd like to make it clear at this time that my comments on owner welfare apply to the Lake States and may or may not be applicable to other regions.

Personally, I feel that we must be cautious to avoid serious pitfalls when we use the owners' welfare as justification for forest ownership research. Although we should concern ourselves with the social implications of various forestry policies and programs, we should realize, first of all, that there are probably direct and, no doubt, more effective and long-lasting ways to deal with the welfare problems observable in the rural areas of the Lake States. How, for example, are we to know that low and infrequent incomes and subsidies stemming from an owner's forest are going to do him any real good? Secondly, I think that the welfare problems of forest-land owners as a group tend to be overplayed. More

and more of the owners in the Lake States are justifying their holding of forest land in terms of its recreational and other psychic attributes (fig. 1). This, I would judge, is *prima-facie* evidence that the welfare position of these owners is not too adverse.

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Figure 1.—More and more of the woodland owners in the Lake States are justifying their holding of forest land in terms of its recreational and other psychic attributes.

Let's consider a hypothetical assistance program where welfare need is the criterion for allocating funds. From my own observations, which may be biased, I would judge that in the majority of instances we would be spending funds in the stands which have the least potential as far as timber production is concerned. As Zivnuska has said, "The 'worst' first philosophy has the appeal to the heroic, but from the production standpoint it rarely makes good sense."[4] All in all, I think that an ownership research program designed to enhance only the income position of the forest owner does not come to grips with the overall problem of low productivity of small forest ownerships. But I feel that "welfare" — and as yet I haven't defined whose welfare — has a place in justifying ownership research. I will say this much: In setting our ownership research goals we would do well to adopt the welfare economists' "pareto optimal" criterion. In

[4]*John A. Zivnuska. An economic view of the small forest ownership situation. Soc. Amer. Foresters Proc. 1962: 14-17. 1963.*

other words, we should not increase the utility of certain individuals while reducing that of others.

While conducting interviews in southern Michigan I was concerned for woodland owners who, I judged, were really "taken" by timber buyers. At first I was all for immediate remedial measures to protect owners from being stung when selling timber. Then I got to thinking about the probable outcome of such action. I dare say that the majority of the sawmillers in southern Michigan would go out of business. Most couldn't continue to pay competitive wages to their help and also higher log prices. Then only a few of the larger, more efficient mills would be left to bid for stumpage.

Although public sanction of private timber sales is far from becoming a reality in the Lake States, orientation of small ownership research as well as action programs favors owners and may have certain detrimental effects on loggers and mill operators. Granted, forcing the inefficient mills in southern Michigan out of business might be the best course of action economically. . . Why should owner ignorance regarding timber marketing continue to subsidize inefficiency on the part of loggers and mill operators? But would the welfare of the owners necessarily be enhanced by raising the price of stumpage? It's possible that market outlets for some timbersheds would dry up completely as operators were forced out. This is the danger of considering (1) just the welfare of the owners, and (2) only the short run. A better course of action might be one that simultaneously considers the problems of the buyers and sellers of stumpage.

The problems of the loggers, producers, and sawmill operators seem to me generally more strategic than those of the landowners in the sense that the demand for small woodland stumpage depends on the economic position of those who market and process timber products. Considerable progress toward a healthier timber industry and fuller utilization of the land's productivity could be made if we were to spend more time studying and appreciating the problems of

this group. In the past we have not only ignored such market intermediaries but we have heaped abuse upon many of them. By taking a fresh and more realistic look at those who buy, harvest, and process stumpage from the small forest tracts in the Lake States we can also do a lot to improve the position of landowners. We may be justified in desiring better cutting practices, but as Marquis[5] told us 14 years ago, vituperative condemnation of loggers may not be the best way to win them over to the cause of forestry. Conceivably we could assist the landowner at the expense of the industry and, of course, in the long run find that the promotion of better forestry on the part of owners of small woodlands was in vain.

Two observations are appropriate at this time: (1) Inasmuch as harvesting is the only "forestry" applied to most small forest tracts, the loggers and mill men often represent the most important determinatives of private forest-land management in the Lake States. (2) There is a relatively small population of loggers and market functionaries to deal with when compared to the omnipresent small landowners. Therefore, for these two reasons alone it would appear that more time should be spent in studying problems that deal with harvesting and marketing of products from small forest tracts.

HOLISTIC APPROACH

So far I have suggested three possible reasons for conducting ownership research: (1) To increase the productivity of small forest holdings to meet future timber requirements, (2) to enhance the owners' welfare, and (3) to find solutions to income and other problems of market intermediaries. I hope I've made it clear that any one of these reasons alone would probably distort our research effort, but even collectively I still find something missing. What is needed is an integrated, *holistic* approach.[6] For this reason

[5]*Ralph W. Marquis. Bromides and folklore in forest economics. Soc. Amer. Foresters Proc. 1947: 76-81. 1948.*

[6]*The holistic doctrine as applied here accepts the notion that one cannot fully understand the "small forest ownership problem" unless the overall economic and sociological environment is also studied.*

I'm happier with the following justification for ownership-type research: Ownership research should strive to achieve more abundant production of consumer goods from small forest tracts, products that are more economical than so-called wood substitutes.

Such a research goal is much broader than mere "ownership" research. This approach would avoid pitfalls resulting from too much attention given to only one or two problem areas associated with the production and marketing of timber products from small forest tracts.

In line with this broad objective I would like to propose that what we have been calling "small forest ownership research" be redesignated as "small-forest-tract production *and* marketing research," since such designation allows for consideration of all economic problems associated with producing timber from woodlands under, say, 5,000 acres in size.

PROPOSALS FOR FUTURE RESEARCH

Implementing a small-tract production and marketing research program would not necessarily mean that research effort would be spread out to include every phase of timber growing and marketing, rather we would look for strategic problems to investigate. The holistic philosophy means that, when we do study and analyze the problems of the owners, or the buyers, or the loggers, or the processors, we consider the importance and interdependence of each to the overall producing, marketing, and consumption schema.

In outlining future research ideas I'm not going to describe the needs in terms of individual projects; instead, I'm going to outline certain problem areas. When it comes time to formulate work plans, a given project may concern only one phase of a major problem area or it may involve aspects of two or more problems. My research proposals are grouped into three problem-area categories — (1) economic supply, (2) marketing, and (3) assistance programs, — and are considered in that order.

ECONOMIC SUPPLY

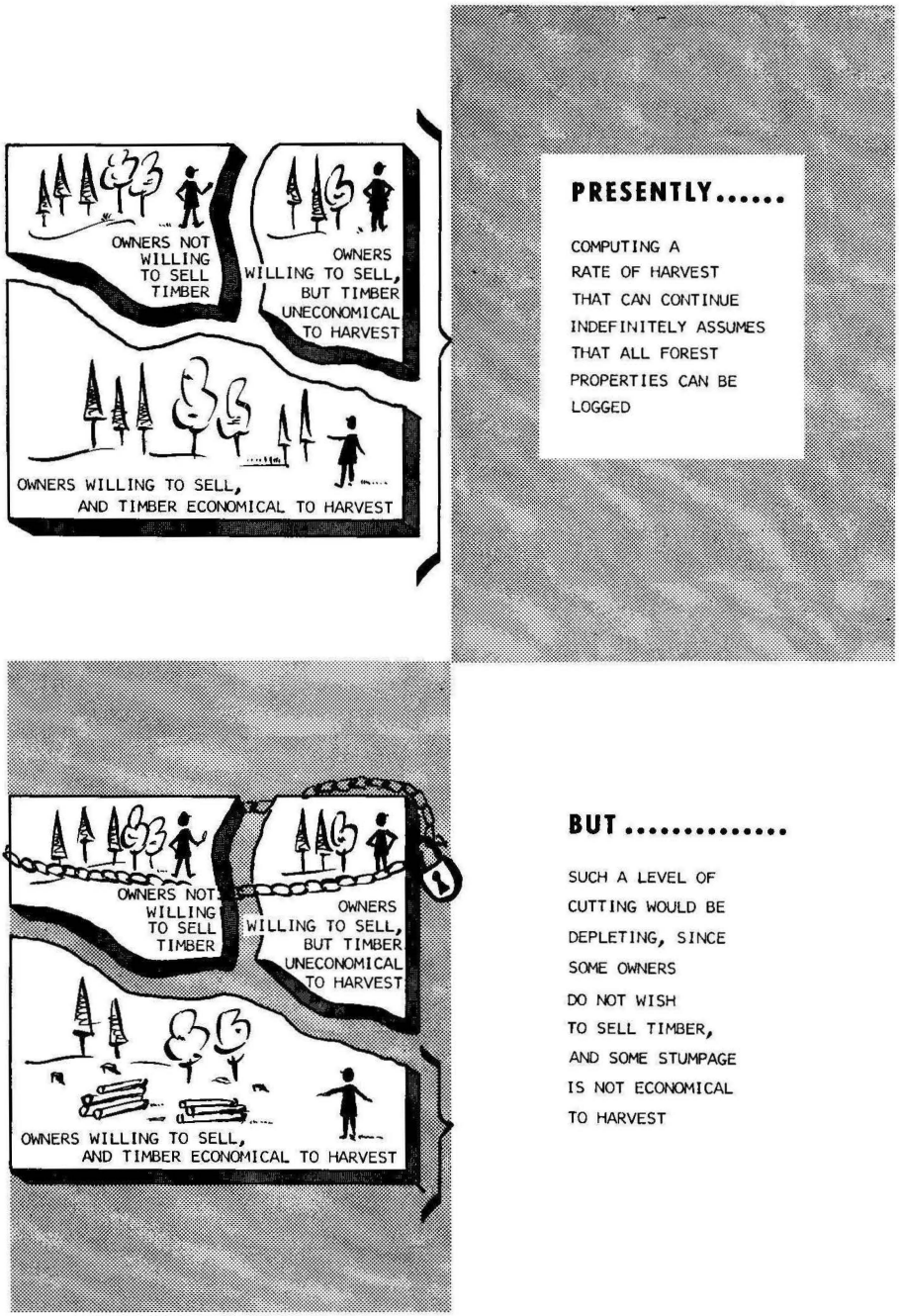
I have already mentioned the dilemma stemming from lack of stumpage supply response information. Until we obtain this information we can only guess as to the real situation in the Lake States. For example, how do we know but what a particular timbershed that exhibits a physical surplus on paper (that is, growth exceeds timber cut and mortality) is, in fact, being logged at a depleting level (fig. 2)? What appears to be an untapped reserve of growing stock might actually be owned by individuals who have no intention of selling timber. Or this so-called reserve may be broken up into many small parcels none of which is economical to harvest.

The need for economic supply information is easy to visualize; obtaining it is another thing since traditional theory is not very helpful. However, I don't think we should ignore the need for research because price theory is not operative. Time and effort spent researching this subject would help resolve technical difficulties and provide us with some workable supply models. More knowledge of supply response at stumpage and intermediate levels not only would aid policy making but also would suggest solutions to production and marketing inefficiencies.

MARKETING

As for studies regarding the marketing of timber from small forest tracts, the first ones should be descriptive. The objective would be to identify marketing problems that are more or less unique with small forest tracts. Such studies would attempt to ascertain whether buyers are encountering difficulties in obtaining stumpage because of such factors as absentee ownership, urbanization, fragmentation, and ownership objectives that find logging incompatible with other values. These studies would also seek to determine what constitutes a marginal logging chance when tract size, location, stocking, and species composition are considered.

I don't think we can expect stumpage prices to decrease in the future. If anything, buyers will probably have to pay


OWNERS NOT WILLING TO SELL TIMBER
OWNERS WILLING TO SELL, BUT TIMBER UNECONOMICAL TO HARVEST
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PRESENTLY.....
COMPUTING A RATE OF HARVEST THAT CAN CONTINUE INDEFINITELY ASSUMES THAT ALL FOREST PROPERTIES CAN BE LOGGED
OWNERS NOT WILLING TO SELL TIMBER
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BUT .....
SUCH A LEVEL OF CUTTING WOULD BE DEPLETING, SINCE SOME OWNERS DO NOT WISH TO SELL TIMBER, AND SOME STUMPAGE IS NOT ECONOMICAL TO HARVEST

Figure 2. — Dearth of supply-response information poses a problem.

more than they are paying today. This could place the final product in a less favorable position with respect to competing materials. In the end, of course, the owners of small tracts will suffer from the lack of markets. (This situation is most acute in the hardwood lumber industry in the Lake States.) This accentuates the need for reducing the cost of logging, marketing, and processing the final product (fig. 3).

Tackling this problem will require more than just economists. Wood technologists, logging engineers, and others can make important contributions. Economists would contribute by isolating and describing inefficiencies in the allocation of labor and capital, institutional factors that inhibit needed investment capital, labor problems, etc. If the cost

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Figures 3a, 3b, & 3c. — The transition from the cross-cut (*A*) to the power saw (*B*) has helped reduce the cost of getting wood products to the consumer, but there is still a considerable amount of hand labor (e.g., *C*) to be eliminated if certain wood products are to remain competitive. (Photos *A* & *B* courtesy School of Forestry, University of Minnesota.)

of getting the final product before the consumer is not reduced or the products upgraded in the near future, markets for the products that service foresters are encouraging owners to grow will be nonexistent when the timber matures. An appropriate observation here is the one which Vaux and Zivnuska made some time ago. They have suggested that programs which would restrict output in the short run might shift the demand curve to the left.[7] In other words, as a result of output being curtailed, present markets might be lost permanently to competing materials because consumer tastes changed.

ASSISTANCE PROGRAMS

This brings me to the last category — assistance programs. Here there are numerous possibilities. For one thing, we should learn more about the residual effectiveness of forestry assistance programs in order to better plan for the future. New or improved ways of publicizing forestry assistance programs is still another subject for research since present means may not be too effective in reaching the largest segment of woodland owners — the nonfarmer group. Along these same lines it might be well to explore other ways to promote the use of, say, ACP funds. For example, I observed an indirect approach in Michigan which might prove useful elsewhere. In one area of the Lower Peninsula private contractors "unofficially" take care of the dissemination task. Of course, they have vested interest because if they can persuade a private owner to apply for cost-share on timber stand improvement, tree planting, or fencing, chances are good they'll get the contract for actually doing the work.

Too often it is assumed that foresters have the best answers to owner queries. I've had several service foresters suggest areas in which they would like more information. Maybe in certain instances better answers are not available, or maybe available information is not reaching them. Either case represents a need for more research.

[7] *Henry Vaux and John Zivnuska. Forest production goals: A critical analysis. LAND ECONOMICS 28: 318-327. 1952.*

Minnesota and Wisconsin both have price reporting services, and Minnesota has a marketing bulletin. Although these services have been in operation for some time, no follow-up has been made regarding their effectiveness. A study to appraise these programs would be appropriate now in light of the fact that legislation to extend price reporting to other regions of the country is in the hopper.

Another assistance program study area would deal with the costs and returns of assistance to private individuals as opposed to monies spent on public lands. In addition, there undoubtedly are areas where public assistance could help the logger and timber buyer. Determining such problems and means to correct them could be the subject of another study.

CONCLUSION

At the August 1963 American Farm Economics Association meetings, Professor Philip Raup of the University of Minnesota spoke of how man has overcome resource deficiencies. He reminded us that uranium had no value to the pioneers, but that salt licks were a cherished resource. Foresters will have to accept the notion that some wood products will be "salt licks" of the future. I think that research concerning small ownerships should take cognizance of an ever-changing economy. Further, it is our responsibility to anticipate changes in product mix, land use, owner characteristics, and marketing needs and techniques, and plan our small-forest-tract research accordingly.

OWNERSHIP RESEARCH AT THE LAKE STATES FOREST EXPERIMENT STATION

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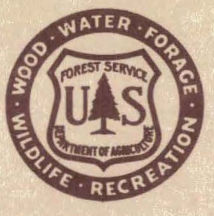
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